



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In reapplication of

E. PRAT et al.

Serial N° : CPA of 08/765,901

Filed : January 7, 1997

Group art Unit : 1754

Examiner : S. HENDRICKSON

For : CONCENTRATED SUSPENSION
PRECIPITATION SILICA, METHODS
OF PREPARATION AND
UTILIZATION OF SAID SUSPENSION

DECLARATION UNDER RULE 132

Hon. Commissioner of Patents and Trademarks

WASHINGTON D.C. 20231

Sir :

I, Frédéric AMICHE, residing at 52 rue de la Haie Coq, 93308 Aubervilliers in France

Declare and say :

I am citizen of France.

I am graduated from the chemical engeneering school ESCIL in Lyon (France)

Since 1994, I have been employed by RHONE-POULENC CHIMIE, the Assignee of the pending application, as head of the silica synthesis laboratory. I was more especially involved in new developments for silica products.

As a result of my education and professional experience, I consider myself able to interprete what patents or other technical litterature would communicate to one of ordinary skill in the art of silica suspensions, and especially as concerns the present application that specifically aims at providing a silica suspension having a high solid content, a low viscosity and a high stability in time.

I am aware of the fact that US patent No.5,430,570 (Chevallier et al.) has been cited in the course of the US procedure as anticipating the subject-matter of the pending application.

Chevallier is concerned with providing dry silica particles which may be in a powder form, and which are obtained by a process which comprise the steps of :

(a) providing an initial sediment or vessel bottoms which comprises at least a portion of the total amount of silicate required for the reaction and an electrolyte, the concentration of silica in said initial sediment being less than 100 g/l and the concentration of electrolyte in said initial sediment being less than 17 g/l ;

(b) adding the acidifying or acid agent to said sediment until the pH of the reaction medium has attained a value of at least about 7 ;

(c) adding additional acidifying agent to the reaction medium and, if appropriate, the remainder of the silicate simultaneously, whereby a suspension is produced in which the maximum proportion of dry solids is 24 % by weight ; and

(d) drying the suspension thus produced.

In that respect, Chevallier describes, on column 11, a deagglomeration test of the silica powder which are obtained after the step (d) of the process.

This test consists in dispersing 2 g of a silica powder thus obtained in softened water so as to provide a 4 % aqueous suspension of silica, which is submitted to an ultrasonic deagglomeration.

I have reproduced this test on a suspension obtained by redispersing the silica powder P1 obtained in example 1 of Chevallier in water so as to obtain a 4 % aqueous suspension and I have submitted it to an ultrasonic deagglomeration in the conditions described on lines 16-26 of column 11 of Chevallier.

The suspension which I have obtained was then allowed to settle. After 30 minutes, the presence of a sedimentation plug was observed. The sedimentation experiment was also conducted with 2 other suspensions, which only differed by their silica concentrations (concentrations of 10 % and 20 % by weight respectively). A sedimentation also occurs within 30 minutes in these cases.

In comparison, I have also prepared 3 silica suspensions with concentrations of 4 %, 10 % and 15 % by weight according to the process of the invention (This is obtained through the modification of concentration and quantities of silicate used). No settling was observed after 30 minutes.

The undersigned Declarant declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true ; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed on the 19th february 2001

